

REMARKS

This is in response to the non-final Official Action currently outstanding with regard to the above-identified application.

Claims 1, 3-13 and 15-22 were pending in this application at the time of the issuance of the currently outstanding Official Action. By the foregoing Amendment, Claims 1, 10 and 21 have been amended. No claims have been canceled, added or withdrawn. Accordingly, upon the entry of the foregoing amendment, Claims 1, 3-13 and 15-22 as amended above will constitute the Claims under active prosecution in this application.

The Claims of this application as they will stand upon the entry of the foregoing Amendment are set forth above including appropriate status identifiers and indications of the amendments made as required by the Rules.

More particularly, in the currently outstanding Official Action the Examiner has:

1. Acknowledged Applicants' claim for foreign priority under 35 USC §119 (a)-(d) or (f), and confirmed the receipt of the required copies of the priority documents by the United States Patent and Trademark Office;
2. Failed to reconfirm that the drawings as filed with this application on 20 June 2003 are accepted – **For the record, Applicants respectfully note that the drawings filed with this application were accepted by the Examiner in the previous Official Action in this case.**

4. Objected to Claims 1, 10, and 21 on the basis that "an optical writing unit" should be -- said optical writing unit -- - **Applicants have adopted the Examiner's proposed changes in the foregoing Amendment;**
5. Rejected Claims 1, 4, 7-13, 16 and 19-22 under 35 USC §103(a) as being unpatentable over Iannazzi et al (US Patent No. 6,842,188) in view of Deguchi, et al. (US 6,061,526);
6. Rejected Claims 3, 5-6, 15 and 17 under 37 USC §103(a) as being unpatentable over Iannazzi et al (US Patent No. 6,842,188) in view of Deguchi, et al. (US 6,061,526), as applied to claims 1 and 10 above, and further in view of Patten, et al. (US Publication No. 2002/0196473).

No further comment regarding items 1-4 above is deemed to be required in these Remarks.

In addition, Applicants respectfully submit that the allowability of the dependent claims 3, 5-6, 15 and 17 will be determined primarily by the allowability of independent Claims 1 and 10 upon which they respectively depend.

With respect to items 5 and 6 above specifically, however, Applicants note that an important feature of the present invention resides in the fact that the focal adjustment of the optical writing unit is performed by positioning the optical writing unit at a proper distance from, and parallel to, an image-carrying member by modifying the position of the ends of the optical writing unit relative to the image carrying member. Accordingly, a method for focus adjustment in the present invention includes the formation of a test pattern comprising uninterrupted pattern elements disposed generally all along an image forming area in a main scanning direction, said multiple pattern elements being of gradually varying density levels.

Further, the modification of the position of each end of the optical writing unit relative to the image-carrying member is performed according to density levels of the portions of each of the multiple pattern elements on the formed test pattern. Claims 1, 10 and 21 have been amended hereinabove in a manner that is respectfully submitted to more clearly and definitively characterize the features of the present invention. Accordingly, Applicants respectfully submit that the Claims of this application are now in condition for allowance.

As Applicants have noted previously in this prosecution, it is well established that in order to support a rejection based upon 35 USC 103(a) the Examiner is required to establish a *prima facie* case of the obviousness of the claims at issue to a person of ordinary skill in the art as of the time that the invention thereof was made. Further, it is also well settled that:

To establish a *prima facie* case of obviousness under Section 103, Title 35 United States Code (35 US §103), three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all of the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on Applicants' disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2D 1438 (Fed. Cir. 1991). Manual of Patent Examining Procedure §2142 (8th Edition), at page 2100-2121, *et seq.*

Applicants again respectfully submit that the Examiner has not established the requisite *prima facie* case in support of his currently outstanding rejections.

Specifically, the Examiner in the currently outstanding Official Action relies upon the Iannazzi et al reference in combination with the Deguchi et al and Patten et al references as rendering independent Claims 1, 10 and 21 of this application unpatentable under 35 USC 103(a). However, Applicants respectfully submit that this combination of references is insufficient to establish a *prima facie* case in support of the unpatentability of Independent Claims 1, 10 and 21 of this application as hereinabove amended for the following reasons.

First, the Examiner suggests that the Iannazzi reference discloses a method and apparatus for the adjustment of the focus of a multi-channel printhead that includes the formation of a multiple pattern element of varying density levels corresponding to different levels of adjustment along the image forming area in a main scanning direction and adjusting the position of the printhead relative to the surface of the image-carrying member accordingly. The Examiner admits, however, that the Iannazzi reference does not disclose, teach or suggest that an image to be used for adjustment is formed based upon image data of a test pattern including uninterrupted pattern elements disposed generally all along an image forming area in a main scanning direction. In other words, the Examiner concedes that the pattern disclosed by Iannazzi in his Fig. 4 is not uninterrupted in the main scanning direction, but rather contains small gaps between the patterns presented.

Further, it is to be noted that the disposition of the printhead in parallel relation with the image forming area is assumed in the Iannazzi reference according to the rigidity of the support rods 206 and 208 as fixedly mounted in the support structure shown in Iannazzi's Fig. 2 (see Iannazzi at Column 5, line 23-40). Accordingly, it will be seen that what Iannazzi really is doing is determining the "optimal" focal spacing between the image forming area and the print head based upon a polynomial algorithm at spaced lines extending across the image forming area at right angles to the main scanning direction (note the randomly varying focus positions of the print head along the spaced lines extending across the image forming area perpendicular to the main scanning direction). This is quite different from the present invention as hereinabove claimed, and certainly would not suggest the present invention to one of ordinary skill in the art.

In recognition of the deficiencies of the Iannazzi reference, the Examiner also cites the Deguchi et al reference. In particular, the Examiner relies upon the Deguchi et al Fig. 19 as showing uninterrupted multiple test patterns arranged along the main scanning direction in combination with the adjustment means shown in Deguchi's Figs. 15A-16. The problem with the Examiner's analysis in this regard is that the density measurements represented in the Deguchi Fig. 19 **are not** related to the focus adjustment means depicted in Deguchi's Figs. 15A-16. Hence, it will be seen from Deguchi at Column 11, lines 24-33 that the pattern depicted in Deguchi's Fig. 19 is related to parallelism among the exposure heads (i.e., whether or not the exposure heads are appropriately disposed parallel to one another to prevent measurements being taken in the diagonal direction to the appropriate common parallel direction). The mechanisms depicted in the Deguchi Figs. 15A – 16, on the other hand, are utilized after the parallelism of the exposure heads has been established as a separate operation unrelated to the pattern depicted in the Deguchi Fig. 19. Accordingly, for these reasons, as well as the fact that the use of the Deguchi Fig. 19 in the context of the Iannazzi reference would render the Iannazzi reference inoperable for its intended purpose because that combination would result in no distribution of focal lengths being derivable from each line perpendicular to the main scanning direction, Applicants respectfully submit that under the above-quoted standards for the establishment of obviousness under 35 USC 103(a) the Examiner's outstanding rejection must fail.

Further, as was alluded to in response to the previous Official Action, Applicants respectfully submit that the Patten reference does not change this result. In the Patten et al reference a test lithographic precursor is created wherein a parameter that changes a variable such as the focus point is varied through some range and a strip 30 of some predetermined pattern is imaged at each particular focus point. The plate is then processed so as to form a lithographic printing surface, reloaded and scanned for the purpose of insuring that the platesetter exposure heads are in appropriate adjustment. In this case, the nature of the precursor is such that a coating thereon will be removed during processing generally in direct relation to how far the particular strip 30 is from the strip position whereat the write beam is in good focus. Therefore, since the substrate under the coating layer of the precursor is generally reflective, the strip closest to the optimal focus location appears dark ("dense" in the words of the Patten et al patent) relative to those around it.

Accordingly, it will be understood that the Patten et al reference does not teach, disclose or suggest multiple pattern elements having different “density” as opposed to multiple pattern elements having different “reflectivity” (a totally different concept from that of the present invention as herein claimed whether the elements forming the pattern elements are in the form of “spots” of various sizes or not). Further, the Patten reference does not teach, disclose or suggest multiple pattern elements that are uninterruptedly formed generally all along the main scanning direction in the image forming area (note that Patten et al does not show this in either Fig. 4 or 5A, and in describing the strips 30 at Column 1 of Page 4 only states that the strips 30 are of a “predetermined pattern”). Still further, and perhaps most importantly, nothing in either the Patten et al reference, the Iannazzi reference or the Deguchi, et al reference provides any suggestion for their combination in the manner suggested by the Examiner. In particular, nothing in the Patten et al references teaches, discloses or suggests the adjustment of the position of the exposure head 12 such that the exposure head 12 is parallel to the surface of the drum 10. Instead, as is the case with respect to the Iannazzi et al reference, the parallel orientation of the exposure head 12 with respect to the drum 10 is simply assumed based upon the construction of the support structure (see element 13 for example) for the exposure head relative to the drum.

Applicants therefore respectfully submit that the Examiner in the currently outstanding Official Action has improperly built a mosaic of isolated elements of the prior art using the present application as a guide in an attempt to support his rejections under 35 USC 103 (a). Further, Applicants respectfully submit that the Examiner has failed to find all of the elements of the present invention as recited in the present claims in the prior art cited, and in addition, has failed to demonstrate that the art itself provides any suggestion for its successful combination in a manner that would lead to the present invention.

In view of the foregoing facts and argument, Applicants respectfully submit that the present application as hereinabove amended is now in condition for allowance. A decision so holding in response to this communication is respectfully requested.

Applicant also believes that additional fees beyond those submitted herewith are not required in connection with the consideration of this response to the currently outstanding Official Action. However, if for any reason a fee is required, a fee paid is inadequate or credit is owed for any excess fee paid, you are hereby authorized and requested to charge and/or credit Deposit Account No. 04-1105, as necessary, for the correct payment of all fees which may be due in connection with the filing and consideration of this communication.

Respectfully submitted,

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